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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,574	01/20/2004	Eric Robert Bechhoefer	BFM-01702	1048

7590 11/08/2004
Patent Group
Choate, Hall & Stewart
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EXAMINER

CHARIOUI, MOHAMED

ART UNIT	PAPER NUMBER
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2857

DATE MAILED: 11/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/760,574

Applicant(s)

BECHHOEFER ET AL.

Examiner

Mohamed Charioui

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 181-200 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 181-200 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/30/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. Applicant cancelled claims 1-180.

DETAILED ACTION

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. **Claims 181, 182, 183, 184, 185, 186, 187 and 188** are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over **claims 121, 122, 123, 124, 125, 126, 128 and 129** respectively of copending Application No. 10/435,926. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 181, 182, 183, 184, 185, 186, 187 and 188 are anticipated by claims 121, 122, 123, 124, 125, 126, 128 and 129 respectively since polynomial meets function and first derivative meets characteristic of a function.

Claim 189 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over **claim 121** of copending Application No. 10/435,926. Although the conflicting claims are not identical, they are

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not patentably distinct from each other because claim 189 is anticipated by claims 121 since polynomial meets function and first derivative meets a derivative.

Claim 190 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over **claim 121** of copending Application No. 10/435,926. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 190 is anticipated by claims 121 since polynomial meets function.

Claim 192 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over **claim 121** of copending Application No. 10/435,926. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 192 is anticipated by claims 121 since first derivative meets characteristic of a function.

Claims 193, 194, 195, 196, 197, 198, 199 and 200 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over **claims 130, 131, 132, 133, 134, 135, 137 and 138** respectively of copending Application No. 10/435,926. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims **193, 194, 195, 196, 197, 198, 199 and 200** are anticipated by claims **130, 131, 132, 133, 134, 135, 137 and 138** respectively since polynomial meets function and first derivative meets characteristic of a function.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 181 and 193 are rejected under 35 U.S.C. 102(b) as being anticipated by Bjork et al. (U.S. 5,128,619).

Bjork et al. teach fitting each of a plurality of functions (i.e. time samples) to a portion of data points representing a received waveform (see col. 2, lines 5-12); determining a characteristic (i.e. derivative) of each of the plurality of functions (see col. 2, lines 12-14); evaluating the characteristic of each of the plurality of functions at data points representing the received waveform (see col. 2, lines 12-16); and detecting an event using the characteristic of each of the plurality of functions (see col. 2, lines 16-25). Regarding claim 193, Bjork et al. further teach a computer program product to perform the claimed invention (see col. 2, lines 40-63 and col. 7, lines 22-33).

Prior art

5. The prior art made record and not relied upon is considered pertinent to applicant's disclosure:

Franchville ['236] discloses frequency domain reflectometer and method of compensating for transmission line attenuation.

Spitz ['616] discloses method to determine and selectively sample positive and negative peak values occurring within a scan reflectance profile signal.

Westrom et al. ['248] disclose fault distance locator for underground cable circuits.

Harman ['222] teaches coupled transmission line sensor cable and method.

Guenther, Jr. et al. ['755] disclose time domain reflectometer having optimal interrogating pulses.

Reddy, III. et al. disclose TDR system and method for detecting leakage of a liquid.

Kochan ['614] discloses method of characterizing events in an acquired waveform data from a metallic transmission cable.

Kelly ['337] discloses time-domain reflectometer based measurement system.

Rockwell et al. ['211] power line fault detector and analyzer.

Krishnamachari et al. ['328] disclose system and method to determine data throughput in a communication network.

Lanan ['171] discloses time domain reflectometer display method.

Krishnamachari et al. ['137] disclose single ended attenuation measurement.

Asher et al. ['518] disclose method and apparatus for optical time domain reflectometry (OTDR) analysis.

Fredrickson et al. ['829] disclose method and apparatus for digital peak detection system including a countdown timer.

Wyar ['844] discloses system and method for providing a time varying gain TDR to display abnormalities of a communication cable or the like.

Contact information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohamed Charioui whose telephone number is (571)

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272-2213. The examiner can normally be reached Monday through Friday, from 9 am to 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S Hoff can be reached on (571) 272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mohamed Charioui

10/29/04


MARC S. HOFF
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